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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/773,991

02/06/2004

Robert K. Barr

52182

7091

7590

05/09/2006

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EXAMINER

ASHTON, ROSEMARY E

ART UNIT

PAPER NUMBER

1752

DATE MAILED: 05/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/773,991

Applicant(s)

BARR ET AL.

Examiner

Rosemary E. Ashton

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 February 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 5-7, 11-13 and 15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 13 and 15 is/are allowed.
- 6) ☒ Claim(s) 5, 7, 11 and 12 is/are rejected.
- 7) ☒ Claim(s) 6 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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DETAILED ACTION

1. The amendment to the claims filed 11/22/05 has been entered. Claims 5-7,11-13 and 15 are pending.

The final rejection of the instant application is withdrawn.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 5,7,11,12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kangas et al Pat. No. 5,563,023 in view of Iwasaki et al. Pat.No.4,232,106 and Reardon et al. Pat. No. 4,552,830.

In claim 9, shown below, Kangas teaches a photoimageable element comprising a metallic substrate (item a below), a photosensitive composition on the substrate (item b) and a layer of an adhesive coated on a second side of the substrate (item d). The photosensitive layer (item b) is coated with a protective polymer layer as in claim 7 (item c).

9. A photoimageable element comprising:

- (a) a metallic substrate coated with a primer layer on a first side;
- (b) a layer of a photosensitive composition comprising a photosensitive

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(c) a protective overcoating comprising an oxygen barrier polymeric material and antiblocking particulate material; wherein the oxygen barrier polymeric material comprises a blend of at least two polyvinyl alcohols having different levels of viscosity and hydrolysis;

(d) a layer of a pressure sensitive adhesive coated on a second side of the substrate; and

(e) a release liner covering the pressure sensitive adhesive.

The photoimageable element may be a negative or positive acting photoresist as shown in col. 1, lines 10-23, shown below. The negative resist the exposed areas typically crosslink with removal of the non-exposed areas.

(3) BACKGROUND OF THE INVENTION

(4) Photoimageable elements, such as lithographic printing plates, circuit boards, photolabels, photoresists, overlay color proofing films, and the like, typically consist of a substrate on which is coated a layer of a photosensitive material. Depending on the application, this photosensitive material can be coated on metal or plastic, for example. This photosensitive material, which can be a photopolymer, oligomer, monomer, or mixture thereof, typically either undergoes a reaction or promotes a reaction upon exposure to radiation thereby forming an image. In negative-acting systems, the nonexposed portions of the layer of photosensitive material are removed to produce an image. In positive-acting systems, the exposed portions of the layer of photosensitive material are removed to produce an image.

Kangas does not teach the negative photoimageable composition has one or more sensitizers in an amount to make a color or shade change at powers at less than 5mW, which is shown in the specification of the instant application to be exposure to visible light.

Iwasaki teaches a photosensitive composition comprising sensitizers that color change on exposure to light. The sensitizers are taught in col. 10, lines 10-46 and include Rose Bengale, Eosine and Erythrocin B which applicant teaches on page 7 of the specification meet the claimed limitation of making a color or shade change at powers at less than 5mW. The power of 5mW corresponds to visible light as taught in the specification. The composition may have a color former such as a leuco dye as taught in col.9, lines 57-62.

Reardon teaches the method of patterning a resist is aided by being able to visually inspect the product after exposure by having a system where the photoresist is colorless in the non-exposed state but colors upon exposure to light (col. 1, lines 39-56).

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It would have been obvious to one of ordinary skill in the art to use the color changing composition taught in Iwasaki in the invention of Kangas with a reasonable expectation of obtaining improved pattern formation because Reardon teaches the method of patterning a resist is aided by being able to visually inspect the product after exposure by having a system where the photoresist is colorless in the non-exposed state but colors upon exposure to light (col. 1, lines 39-56).

Allowable Subject Matter

5. Claim 6 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. The following is a statement of reasons for the indication of allowable subject matter: The prior art does not anticipate or render obvious that the sensitizer is a cyclopentanone.

7. Claims 13 and 15 are allowed.

8. The following is an examiner's statement of reasons for allowance: The method of claim 13 reads on an article having a color changing coating a substrate, applying the article to a workpiece and applying energy at a power of 5mW or less so that a color change occurs.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rosemary E. Ashton whose telephone number is 571-272-1326. The examiner can normally be reached on Mon-Fri, 11:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia Kelly can be reached on 571-272-1526. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Rosemary E. Ashton
Primary Examiner
Art Unit 1752

May 8, 2006

**ROSEMARY ASHTON
PRIMARY EXAMINER**